

# Exhibit 2

**UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK**

SECURITIES AND EXCHANGE COMMISSION,

Plaintiff,

v.

RIPPLE LABS INC., BRADLEY  
GARLINGHOUSE, and CHRISTIAN A.  
LARSEN,

Defendants.

Case No. 20-CV-10832 (AT)

**DECLARATION OF DAVID SCHWARTZ SUPPORTING  
DEFENDANTS' MEMORANDUM OF LAW IN SUPPORT OF  
THEIR MOTION FOR SUMMARY JUDGMENT**

I, David Schwartz, hereby declare under penalty of perjury pursuant to 28 U.S.C. § 1746 as follows:

1. I am Chief Technology Officer of Ripple Labs Inc. ("Ripple"). I have served in that role since July 2018. In that capacity, I am responsible for the security of the company's XRP holdings and the company's strategic direction for development of technology. As set forth below, I am one of the developers of the distributed ledger now known as the XRP Ledger. Further, I have served in a technical leadership capacity for Ripple continuously since it was founded in 2012 as "NewCoin." I make this declaration based on my personal knowledge and on information made known to me in the course of my duties at Ripple. If called to testify, I would testify competently to them.

2. A blockchain is a system for securely recording information. Each transaction is recorded in a "block" on the digital ledger, and each block, in turn, "has a cryptographically secure reference to the prior block," resulting in an immutable timeline of transactions. A

blockchain database is typically recorded across a network of computer systems. The distributed nature of the blockchain helps make it difficult, if not impossible, for would-be bad actors to alter past transactions.

3. The Bitcoin blockchain was launched in 2009. In 2011 and early 2012, Jed McCaleb, Arthur Britto, and I developed the source code for a new alternative to the Bitcoin blockchain, now known as the XRP Ledger. At the time, the Bitcoin blockchain, which relied on proof-of-work verification, was the only blockchain technology known to exist. By 2012, other small cryptocurrencies had copied the Bitcoin ledger's open-source code with minimal alterations, but none of those deviated in any significant way from the structure of the Bitcoin ledger. We intended to create a better blockchain than Bitcoin by increasing the speed of transactions, reducing their cost, and minimizing energy consumption.

4. Upon the launch of the XRP Ledger, it was fully operational, and everyone who had or received XRP could use that XRP to operate the ledger or for other uses. Before that time, all known existing blockchains relied on a proof-of-work mechanism. Today, most major blockchains (including the two largest, Bitcoin and Ethereum) still do (though developers of the Ethereum blockchain are moving to a different approach called "proof of stake"). The XRP Ledger, however, used (and continues to use) a different, more environmentally friendly, method to validate transactions. It relies on a consensus protocol that requires a supermajority of validators (specifically, 80%) to validate transactions.

5. The XRP Ledger's consensus mechanism is faster, more reliable, and less costly than Bitcoin's proof-of-work mechanism. The XRP Ledger can process 1,500 transactions per second. Transactions on the XRP ledger ordinarily settle in about 3-5 seconds. Each transaction submitted to the XRP Ledger specifies the fee it is willing to pay for settlement, and settlement

almost always costs precisely the fee specified in the transaction. Transactions that will pay a higher fee are ordinarily settled more quickly. The minimum fee for a transaction is 0.00001 XRP (a fraction of a penny at the current USD/XRP exchange rate). That XRP is destroyed and does not go to Ripple or any other entity; XRP therefore must be used to operate the ledger. I have never seen a time when the minimum fee would not allow a transaction to be settled in less than 30 seconds. Paying twice the minimum fee (still a fraction of a penny at the current USD/XRP exchange rate) will nearly always allow a transaction to settle within six seconds. In contrast, the Bitcoin blockchain writes a new block every 10 minutes, and transactions sometimes have to wait for multiple new blocks to be written before they can settle, meaning settlement times on the Bitcoin blockchain can exceed 10 minutes, sometimes significantly, and can be unpredictable. Each transaction on the XRP Ledger consumes less than 0.002% of the energy consumed by a transaction on the Bitcoin ledger, making the XRP Ledger significantly more environmentally friendly (about 57,000 times more energy efficient). As noted above, transactions on the XRP Ledger typically cost 0.00001 XRP – a fraction of a penny at the current USD/XRP exchange rate, and much lower than typical transaction costs on proof-of-work blockchains like Bitcoin or Ethereum.

6. No XRP was sold before the launch of the XRP Ledger in 2012. Rather, when the XRP Ledger launched, its code automatically created 100 billion XRP. Chris Larsen, McCaleb, and Britto (the original recipients of XRP) granted 80 billion units of XRP to a newly-formed corporate entity, now called Ripple, while retaining 20 billion among themselves. Larsen and McCaleb each retained approximately nine billion; Britto retained the remaining two billion.

7. Ripple never owned the 20 billion XRP retained by Larsen, McCaleb, and Britto. The XRP those individuals owned was their own. To the extent they have sold any of their 20

billion XRP since 2012, the proceeds from those sales were, to the best of my knowledge, never held by Ripple or commingled in Ripple accounts with Ripple-owned assets.

8. The core code for the XRP Ledger was completed in June 2012. Ripple's predecessor was founded later in 2012, after the core code for the XRP Ledger was already completed.

9. The XRP Ledger launched in 2012. Ripple does not own the Ledger. The XRP Ledger's underlying code, known as "rippled," is open-source, and the Ledger is operated by an independent network of validators. Anyone can use the XRP Ledger, submit transactions to the XRP Ledger, host a node to contribute to the validation of transactions, propose changes to the XRP Ledger's source code, or develop applications that run on the XRP Ledger. Indeed, many developers with no connection to Ripple have built software products that use the XRP Ledger, such as a range of payment-processing applications including micropayments.

10. Ripple cannot unilaterally force through changes to the XRP Ledger, and validators can implement changes to the XRP Ledger's code without Ripple's input – indeed, even over Ripple's express objections. That has happened recently in practice: in June 2020, over Ripple's objection, the XRP Ledger's code was modified to introduce a "check-writing" feature, which allows one account to claim funds from another account.

11. The exact number of individuals and businesses that use or have used the XRP Ledger or XRP is unknown and unknowable to Ripple. As of December 21, 2020, more than 2.3 million wallets existed on the XRP Ledger; as of September 1, 2022, the number of wallets had doubled to more than 4.6 million. Numerous accounts can be included within one wallet on the XRP Ledger. These different accounts are differentiated by a "destination tag," which is a unique identifier for an account. Destination tags indicate the beneficiary or destination for a

payment. For example, an exchange that provides services related to XRP will have at least one wallet on the XRP Ledger. The account for each customer at that exchange that has XRP will be identified by the XRP Ledger address for the exchange as well as a unique destination tag. As of December 21, 2020, based on destination tags, more than 9 million distinct accounts existed on the XRP Ledger; as of September 1, 2022, the number of distinct accounts had increased to more than 22 million.

12. From the XRP Ledger's launch in 2012 to the filing of this litigation, more than 1.28 trillion units of XRP were moved across the XRP Ledger in payments transactions.

13. I have reviewed data pulled from the XRP Ledger showing certain statistics as of December 21, 2020. They show the following figures:

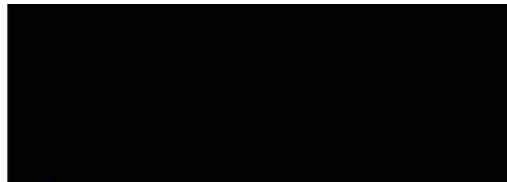
- a. total payments transactions: 142,977,572;
- b. total wallets: 2,335,715
- c. total distinct accounts: 9,237,387;
- d. units of XRP that have moved in payments transactions: 1,285,931,691,663; and
- e. ledgers closed: 59,215,685.

14. I also have reviewed data pulled from XRP Ledger records showing the same statistics as of September 1, 2022. They show the following figures:

- a. total payments transactions: 253,284,355;
- b. total wallets: 4,605,898
- c. total distinct accounts: 22,493,067;
- d. units of XRP that have moved in payments transactions: 2,072,619,364,384; and
- e. ledgers closed: 72,936,694.

15. I have presented the results of these calculations in this form because the raw sources otherwise cannot be conveniently examined from the raw data alone.

Executed on this 13th day of Sept, 2022.

A large black rectangular redaction box covering the signature of David Schwartz.

David Schwartz